

**21**

**29.** The kit of claim **27** wherein the matrix composition further comprises a size-separation property modifying polymer.

**30.** The kit of claim **29** wherein the size-separation property modifying polymer is poly(ethylene oxide).

**31.** The kit of claim **27** further comprising a size-separation property modifying polymer.

**32.** The kit of claim **31** wherein the size-separation property modifying polymer is poly(alkylene oxide).

**33.** The kit of claim **27** wherein the matrix composition further comprises boric acid or a salt thereof.

**34.** The kit of claim **27** wherein the matrix composition further comprises imidazole or a salt thereof.

**22**

**35.** The kit of claim **27** wherein the matrix composition has a pH between 6.5 and 8.5.

**36.** The kit of claim **27** wherein the matrix composition further comprises a DNA stain.

**37.** The kit of claim **27** wherein the buffer comprises imidazole or a salt thereof.

**38.** The kit of claim **27** wherein the buffer comprises boric acid or a salt thereof.

**39.** The kit of claim **27** wherein the buffer comprises imidazole or a salt thereof, and boric acid or a salt thereof.

**40.** The kit of claim **27** wherein the cross linking agent is cystamine.

\* \* \* \* \*